HOW SUCCESSFUL IS MOBILE LEARNING?

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DEFINITION

Mobile learning is the provision of education and training on PDAs (Personal Digital Assistants). smartphones and mobile phones, including palmtops, handhelds, iPods and MP3 players.

STATISTICS

The CEO of Ericsson, Carl-Heinric Sandberg, announced a short time ago that the number of mobile subscriptions in the world had reached 3.300.000.000. This is for a world population of about 6.5 billion. This means there is a wireless device for every 2 persons in the world, including all the poorest and underdeveloped countries.

ADVANTAGES

There is an old saying in distance education research which states that ‘it is not technologies with inherent pedagogical qualities that triumph in distance education but technologies which are generally available to citizens’.

If this is true there has never been a technology as available to citizens as mobile telephony. The figure is 3.3 billion and rising rapidly.

ADVANTAGES

Young people of today are extremely competent in the use of mobile devices. They regard them as friendly, personal possessions, even fashion statements, in a way that no other technology is viewed.

ADVANTAGES

It is the work of the field of mobile learning to harness for education and training the vast availability of mobile devices. It is known that every student in every course in every institution in every EU country owns a mobile phone. They use their mobile phones constantly, in every walk of life – except their education.

ADVANTAGES

It is clear that in a few years time a handheld phone will have the processing power of a computer of a few years ago, including access to the WWW, audio, video, email, SMS messaging.

ADVANTAGES

The sending of news feeds to citizens' mobile phones is an established business today and spreading rapidly. Mobile learning uses exactly the same technologies for sending courseware to students as the news companies use text and graphics to send news feeds to mobile phones.

DISADVANTAGES

Screen size is the most frequently cited disadvantage for mobile learning – but it does not deter the news, sports and pornography industries from sending text and graphics to phones today in most countries of the world. This is a permanent problem that the mobile learning industry has to address and overcome.

DISADVANTAGES

Battery life is another frequently listed problem for mobile learning. But it will be solved by further developments in wireless technologies.

DISADVANTAGES

Data input is another frequently mentioned problem for mobile learning. Young people of today are very adept at sending SMS messages at great speed, but the input of an essay-type answer to be sent to a tutor for correction will always be a problem. Multiple choice questions, however, pose no problems for mobile learning.

HOW SUCCESSFUL IS MOBILE LEARNING?

After 10 years of activity it is time to evaluate what progress has been made and to ask is mobile learning a success? Has mobile learning been incorporated into mainstream education and training? Has mobile learning become part of the school curriculum? Has mobile learning become part of corporate training?

The role of mobile learning in European education

This project has carried out in-depth analyses of the success of mobile learning in 9 international countries: Australia, Canada, China, India, Japan, Korea, South Africa, Taiwan and the USA. This international study has resulted in a 178 page volume of data on the 9 leading international countries for mobile learning which is available for free download from the project website.

The role of mobile learning in European education

This project has carried out in-depth analyses of the success of mobile learning in 28 European countries: the 27 members of the European Union and Norway. This European study has resulted in a 300 page volume of data on the 28 leading European countries for mobile learning which is available for free download from the project website.

AUSTRALIA

Current mLearning initiatives within the education and training sector of Australia are characterised by fragmentation. Several universities and education faculty staff have pockets of research, initiatives and enthusiasm; however their work is essentially focused on the Higher Education sector, providing limited awareness of research outcomes or benefit to K-12, VET or life-long-learning developments.

The Australian Government has taken no significant interest in developing or optimizing networks or mobile systems to support mLearning.

CANADA

In Canada, the first short experiment took place in 2001, conducted at the Northern Alberta Institute of Technology and using PDAs. Since then, different universities have been experimenting with podcasting of lectures.

Athabasca University, which hosted the International Mobile Learning Conference in 2006, is leading in mobile learning research where it has created a mobile-enabled digital reading room with materials accessible using a variety of different mobile devices.

CHINA

China is not yet the country of mobile learners, but it has all the potentials to incorporate mlearning into mainstream education in the future. The mobile telecommunication sector is rapidly growing, just like the rate of internet access within the population. The coastal and the special administration areas are very well developed, but the great inland territories still need tremendous amount of infrastructural investment. There are several companies, universities, research institutions active on the field of ICT supported learning, providing a good basis for valuable research activities in mobile learning.

INDIA

Companies in India are receiving contracts for the development of mobile learning materials from institutions in Europe and in America. Two examples of these mobile learning development companies are given here: ZMQ Software Development Systems and Aptara.

JAPAN

Japanese researchers use the concepts ‘pervasive learning’ and ‘ubiquitous learning’ to emphasise that mobile devices often are applied in learning situations taking place at a place directly related to the object of learning. Often, mobile learning is organised as collaborative learning, focusing on sharing knowledge and social knowledge building.

There is high government attention to develop Japan into an ubiquitous learning society where mobile devices are widely used for increasing welfare and life-long learning for all. There are some universities specifically working on the development of solutions for mobile learning: Tokushima University, University of Tokya, Oita University and Kobe University.

REPUBLIC OF KOREA

The Republic of Korea is in the forefront in Asia and in the world in adopting new technology for learning. For instance, it has been far ahead of Japan in introducing broadband access in the homes. The Korean government has actively tried to influence the development of Korea into an ubiquitous learning society. There are examples of mobile learning activities on all educational levels.

The Ministry of Education has including mobile learning as one section of the nation-wide educational software context. Korean universities encourage the development of Internet learning that uses mobile technology and both elementary and secondary schools use mobile technology in learning.

SOUTH AFRICA

Work at the University of Pretoria and at Tshwane University of Technology gave South Africa a leadership role in the field of mobile learning which has now been built on by other institutions in the country.

The University of Pretoria work provided mobile learning for students enrolled in a Post-graduate Diploma in Education who were all teachers in rural schools in South Africa. These students had no access to email or to e-learning but all had mobile phones which were used successfully by the University in their education.

TAIWAN

Taiwan is a small island, but very strong when it comes to mobile learning. The country already has a very good mobile telecommunication infrastructure, which is under continuous development due to the strong commitment of the government.

Schools and universities are picking up mobile educational services based on the highly developed telecommunication infrastructure. But not only the usage of these services is remarkable in Taiwan, but also the amount of research activities, carried out by various universities and research organisations.

UNITED STATES OF AMERICA

In a number of US universities the web portals are now able to send administrative messages to their students, using new channels of communication based on mobile devices (ipods, mobile phones, smart phones, PDAs, etc).

One of the main strategies for the development of the m-learning field in Universities seems to be based on the availability of devices for students free of charge. The Universities are offering iPods, MP3 readers, PDAs or other recent devices to their students. Those devices have already pre-loaded contents with university based information and then students can use them to download other files from the University Library, or from the university portals, or from the teachers' podcasts.

EUROPE LEVEL 1

At level 1, there can be no doubt that the United Kingdom is the leading provider. The United Kingdom has at least 4 areas of provision: primary and secondary schools, universities, government departments and corporate providers.

Provision at primary and secondary school level is vibrant. This work began with Professor Mike Sharples, then of the University of Birmingham, working with primary school children who recorded and analysed data on PDAs. Hundreds of UK primary and secondary schools attended the Handheld Learning Conference in London in October 2007, and this gave the conference a noticeable school-level focus.

EUROPE LEVEL 1 (cont)

Many UK universities are active in the field. Leaders are the University of Nottingham (Prof Sharples), the Open University which has a mobile learning research group that produced the major book in the field, London Metropolitan University, which has produced extensive mobile learning courseware and the University of Bristol (Dr Wishart) which has produced extensive mobile learning materials for teacher training.

The government agency LSDA led a major EU project to produce literacy and numeracy mobile learning materials for disaffected youths and its successor LSN is again involved in a major project, MoLeNET. BECTA has also worked extensively in mobile learning.

EUROPE LEVEL 1 (cont)

There are a wide range of British companies involved either in the production of mobile learning systems or of mobile learning courseware to run on these systems. These include Tribal CTAD, Handheld Learning, ConnectED, Learning in Hand.

Finally 1000 British delegates are expected at the Handheld Learning conference to be held in London in October 2008. If each of these delegates has been involved in the provision of mobile learning in some way, then mobile learning in the UK is thriving indeed.

EUROPE LEVEL 2

Level 2 consists of countries in which there has been mobile learning activity mainly in the form of participation in European Commission funded projects.

These countries are: Austria, Bulgaria (notably the University of Plovdiv), Cyprus, Czech Republic, Denmark, Finland, Hungary (notably Corvinus University of Budapest), Ireland (notably Ericsson Education Ireland), Italy (many university and government research centre projects), Netherlands, Norway (notably NKI), Portugal, Slovakia, Slovenia, Spain, Sweden.

EUROPE LEVEL 3

Level 3 countries are making their first fragile steps in the field of mobile learning. These countries are: Estonia, France, Greece, Latvia, Lithuania, Malta and Poland.

EUROPE LEVEL 4

Level 4 countries are those in which little or no activity in mobile learning has been documented. These countries are Belgium, Luxembourg and Romania.

CONCLUSION

The concrete aims and objectives of the project are to contribute to the continued development of mobile learning in Europe and to address the imbalance identified above between the availability of mobile devices and the lack of education and training provision on the sophisticated communications devices which every student in every EU country carries and uses constantly – except in education.


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